

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P239119

Luminaire Tested: **ARCH-AF24-30-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239119
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-30-D-U-T2U
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4079.5 lumens
Efficiency: N/A
Efficacy: 131.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 31
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

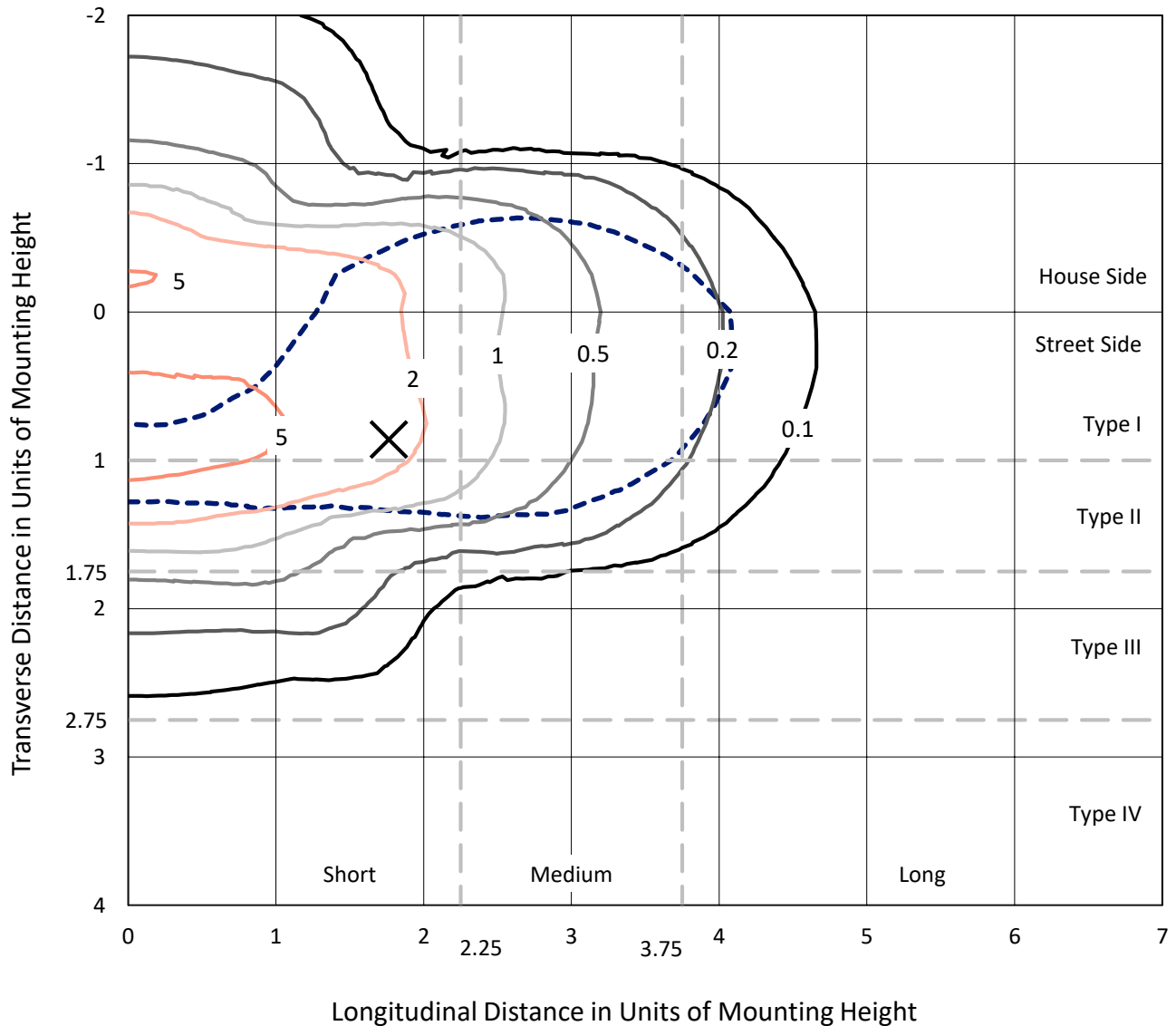


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

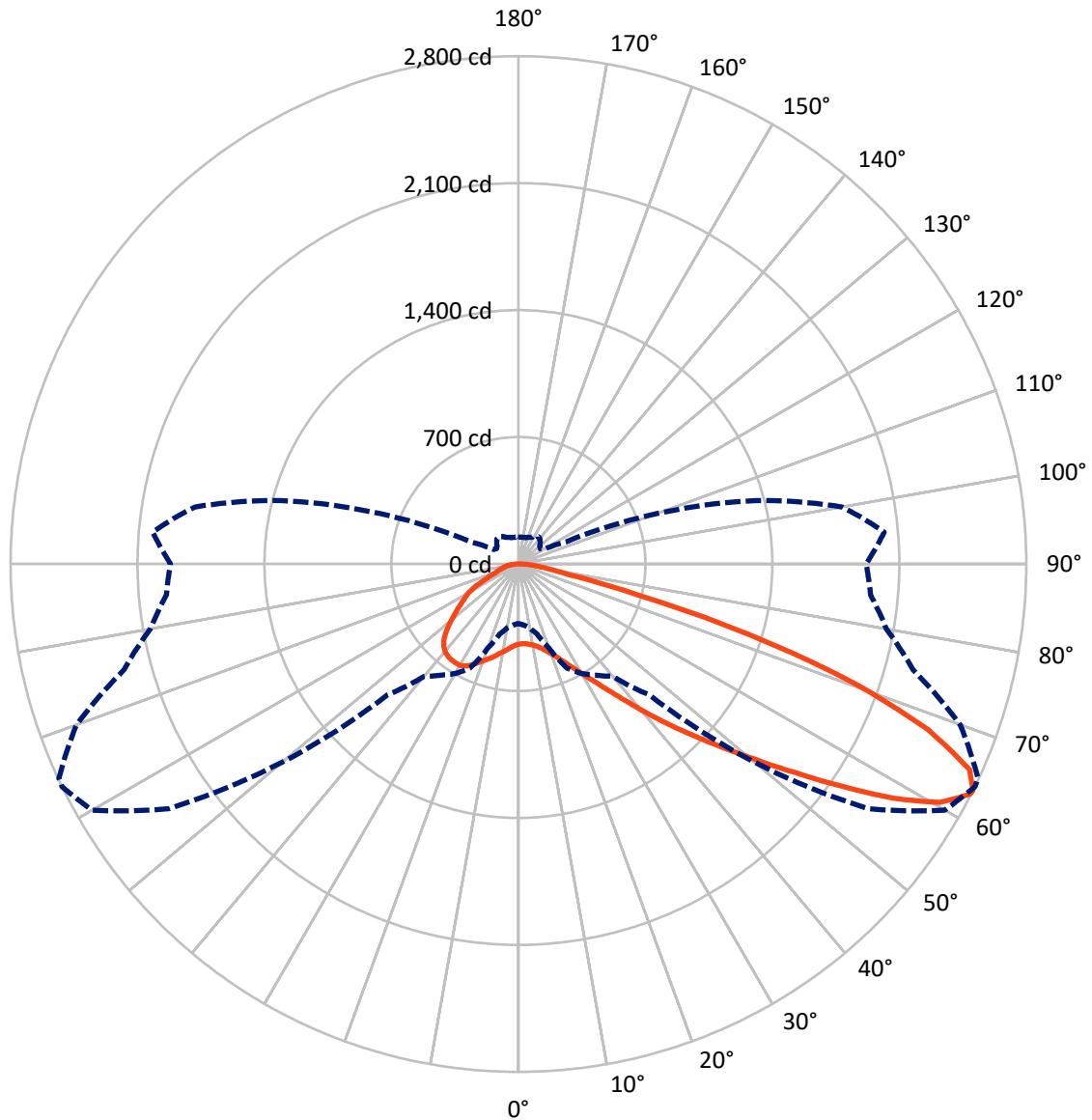


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1199.2	0.0	1199.2
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	2880.3	0.0	2880.3
	% Fixture	70.6	0.0	70.6
Total	Lumens	4079.5	0.0	4079.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.1	1.1
10°-20°	146.9	3.6
20°-30°	275.8	6.8
30°-40°	462.3	11.3
40°-50°	775.6	19.0
50°-60°	983.2	24.1
60°-70°	867.3	21.3
70°-80°	447.7	11.0
80°-90°	76.6	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4079.5	100.0
0°-180°	4079.5	100.0



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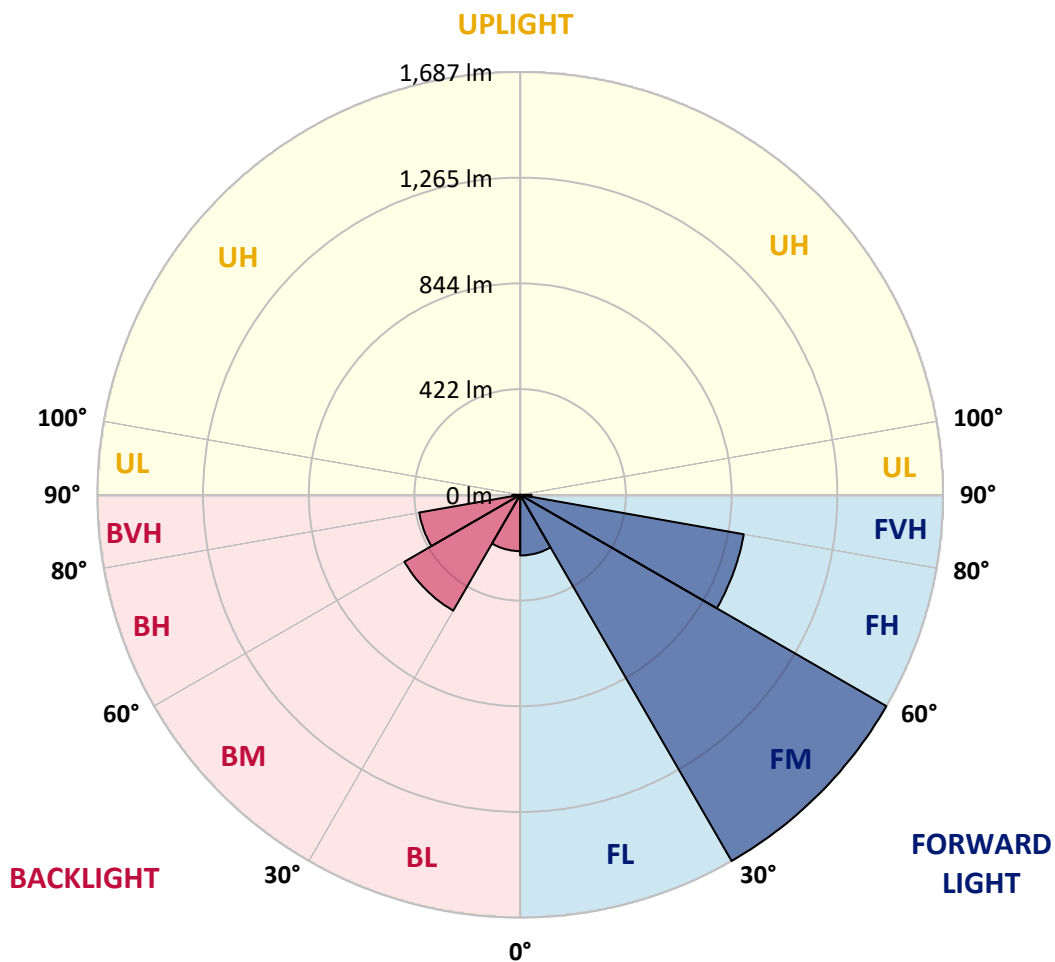
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	242.1	5.9			
FM	(30°-60°)	1687.2	41.4			
FH	(60°-80°)	905.9	22.2			G1/1800
FVH	(80°-90°)	45.1	1.1			G1/100
BL	(0°-30°)	224.7	5.5	B1/500		
BM	(30°-60°)	533.8	13.1	B1/1000		
BH	(60°-80°)	409.2	10.0	B1/500		G1/500
BVH	(80°-90°)	31.5	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8
2.5°	439.1	438.4	438.4	438.4	438.4	437.7	438.4	439.8	439.1	438.4	439.8
5°	440.5	439.8	439.8	439.8	440.5	439.8	440.5	442.5	441.1	441.1	442.5
7.5°	443.9	443.1	443.9	443.1	443.1	443.1	443.9	445.9	445.2	445.9	448.0
10°	448.0	448.0	448.0	448.0	448.0	448.0	449.3	450.7	451.3	452.0	454.8
12.5°	460.2	460.2	460.2	459.6	459.6	457.6	460.2	461.7	463.0	464.3	466.4
15°	486.2	486.2	485.5	482.8	482.8	478.6	479.4	480.1	480.1	481.4	482.8
17.5°	520.4	519.7	518.3	516.3	513.5	508.7	507.4	506.0	503.9	503.3	503.3
20°	568.1	567.4	564.8	559.2	555.9	548.3	542.9	537.5	535.4	531.9	531.2
22.5°	636.4	636.4	631.0	622.8	620.0	604.4	588.6	577.0	573.0	568.1	568.1
25°	719.0	718.4	710.8	701.3	689.7	673.3	654.2	638.5	628.2	617.4	613.3
27.5°	818.1	816.0	805.8	794.1	772.3	751.9	729.3	712.9	695.2	681.5	669.2
30°	934.2	932.1	914.3	892.5	869.9	849.5	816.7	796.9	769.0	752.5	738.9
32.5°	1068.7	1066.6	1034.5	1013.3	989.5	964.2	925.3	893.9	858.4	835.1	816.0
35°	1240.1	1231.8	1186.1	1156.8	1119.2	1093.9	1052.9	1010.7	968.9	936.2	908.2
37.5°	1425.2	1415.6	1375.3	1331.6	1294.7	1264.0	1206.0	1152.7	1103.5	1058.4	1023.6
40°	1618.4	1593.1	1550.1	1518.0	1492.7	1463.3	1402.6	1346.6	1269.5	1218.9	1166.4
42.5°	1752.2	1727.7	1697.6	1676.4	1664.1	1641.6	1607.5	1559.0	1490.0	1491.4	1352.8
45°	1840.3	1804.1	1783.6	1785.0	1789.8	1789.8	1783.6	1776.1	1746.1	1766.5	1650.4
47.5°	1808.9	1785.0	1772.1	1799.4	1833.4	1867.6	1907.2	1950.3	1999.5	2057.5	1914.8
50°	1624.5	1633.4	1639.6	1697.6	1770.6	1848.5	1939.3	2056.7	2194.0	2220.6	2151.7
52.5°	1330.2	1349.4	1369.8	1458.6	1554.9	1689.4	1848.5	2042.4	2226.8	2335.4	2328.5
55°	1033.2	1057.1	1100.8	1167.0	1243.5	1370.5	1567.2	1866.3	2153.7	2326.5	2431.7
57.5°	735.4	770.3	827.7	919.8	987.5	1059.2	1204.5	1536.5	1851.2	2172.8	2414.6
60°	489.0	505.3	542.9	657.6	771.6	846.8	949.8	1070.0	1327.5	1770.6	2238.4
62.5°	346.9	357.8	381.0	432.9	536.0	672.0	734.1	789.4	872.0	1139.1	1797.3
63°	327.8	337.4	356.5	400.2	493.1	633.7	697.2	747.8	807.8	1018.9	1700.3
65°	271.8	275.9	286.1	307.3	357.1	473.9	577.7	608.5	618.7	654.9	1065.3
67.5°	229.4	232.2	235.6	241.7	261.6	315.5	430.9	469.8	458.2	433.6	526.5
70°	199.4	201.4	206.9	214.4	221.3	234.9	296.3	354.5	341.5	308.0	322.3
72.5°	159.1	162.5	168.7	181.7	195.3	213.1	228.1	264.2	256.0	224.0	227.4
75°	125.6	127.7	133.2	142.7	155.7	176.2	205.5	217.8	195.3	165.2	165.2
77.5°	99.7	101.8	106.5	114.1	122.2	136.6	157.0	189.1	175.5	124.3	123.6
80°	75.1	77.1	81.9	88.8	97.0	107.2	119.5	133.8	161.1	116.1	92.9
82.5°	55.3	56.0	64.1	68.9	71.7	79.9	90.1	98.3	110.6	107.2	82.7
85°	41.6	41.0	46.4	49.8	50.5	52.6	58.7	66.9	72.4	69.7	64.1
87.5°	23.2	20.5	23.9	27.3	27.3	28.0	29.4	34.2	38.9	37.5	34.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8
2.5°	439.8	439.8	439.1	439.1	439.8	439.8	439.1	441.1	442.5	442.5	443.1
5°	441.8	442.5	441.8	441.8	442.5	442.5	443.1	445.2	447.2	448.7	450.7
7.5°	448.0	448.7	448.0	448.0	448.7	449.3	450.7	453.4	454.8	457.6	460.9
10°	454.8	455.4	454.8	455.4	456.1	456.8	458.9	460.9	463.0	465.7	471.2
12.5°	467.1	467.8	466.4	467.1	469.1	469.1	470.5	471.9	475.3	478.6	484.2
15°	484.2	484.2	482.8	483.4	485.5	485.5	486.2	487.5	491.6	495.7	501.2
17.5°	503.9	505.3	504.6	505.3	506.7	507.4	507.4	508.7	511.5	514.2	519.7
20°	530.6	531.2	529.9	531.2	532.7	531.2	529.9	529.2	530.6	531.9	538.1
22.5°	566.8	566.1	562.7	562.7	562.7	560.0	556.5	552.4	552.4	550.3	555.2
25°	609.8	607.7	602.9	603.6	598.8	594.7	588.6	582.5	577.0	575.0	575.6
27.5°	660.3	656.2	651.4	650.1	645.3	637.8	627.6	615.9	607.0	600.3	598.8
30°	723.8	714.9	706.8	705.4	697.9	685.6	669.2	653.5	638.5	626.9	622.8
32.5°	798.9	785.3	772.3	771.0	758.6	742.3	722.5	700.6	678.7	660.3	651.4
35°	887.0	866.5	854.3	850.9	833.1	812.6	790.7	762.7	732.0	706.0	689.7
37.5°	994.2	973.0	952.0	952.6	928.0	904.1	874.7	840.6	801.7	765.5	742.3
40°	1126.7	1096.7	1069.4	1063.3	1042.1	1008.6	976.5	936.9	889.0	841.3	807.8
42.5°	1287.2	1238.1	1200.4	1195.0	1167.0	1126.1	1087.1	1034.5	986.0	928.0	887.7
45°	1469.5	1391.0	1345.9	1337.7	1292.7	1251.0	1203.9	1147.9	1088.5	1023.0	975.1
47.5°	1696.3	1584.2	1507.7	1494.1	1431.9	1377.3	1328.2	1266.0	1195.0	1122.0	1069.4
50°	1960.5	1795.3	1692.2	1671.0	1587.6	1523.5	1460.7	1382.8	1307.0	1230.5	1169.7
52.5°	2225.4	2047.9	1910.7	1884.7	1761.8	1675.7	1593.1	1515.3	1425.8	1350.0	1281.0
55°	2438.5	2320.4	2161.3	2125.1	1948.9	1832.1	1723.6	1634.8	1546.0	1485.9	1404.6
57.5°	2566.9	2560.8	2435.0	2385.2	2144.2	1971.4	1850.5	1749.5	1663.4	1638.2	1530.3
60°	2563.4	2722.6	2668.6	2631.0	2341.5	2114.1	1957.1	1847.9	1776.8	1805.5	1656.7
62.5°	2407.1	2729.4	2794.3	2784.1	2551.9	2228.9	2044.5	1931.8	1894.3	1979.6	1787.7
63°	2350.4	2713.7	2799.7	2795.6	2592.2	2250.7	2059.5	1948.2	1917.5	2024.0	1811.6
65°	1986.5	2576.4	2733.5	2751.9	2678.9	2325.8	2094.3	1989.8	1986.5	2123.0	1868.3
67.5°	1210.7	2176.9	2435.0	2470.6	2556.7	2349.7	2074.5	1975.5	2024.7	2137.4	1851.2
70°	517.6	1436.7	1957.1	2014.4	2224.7	2231.0	2017.9	1916.8	2015.8	2025.3	1729.7
72.5°	306.6	677.4	1332.3	1457.2	1760.4	1919.6	1888.1	1814.4	1899.0	1778.8	1472.9
75°	217.2	316.8	676.7	809.9	1225.7	1465.4	1586.3	1620.5	1617.0	1410.8	1105.5
77.5°	155.7	203.5	285.4	336.7	684.3	941.0	1088.5	1188.2	1156.0	944.4	681.5
80°	108.5	140.7	174.8	185.8	317.5	483.4	573.6	617.4	598.2	471.9	305.2
82.5°	78.6	92.2	112.6	119.5	159.8	223.3	265.7	234.3	224.6	174.1	131.8
85°	60.8	59.4	70.4	73.0	93.6	116.7	119.5	92.9	81.2	72.4	73.8
87.5°	43.1	36.8	37.5	38.9	48.5	62.1	60.8	38.3	32.7	34.8	39.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8	441.8
2.5°	444.6	445.2	446.6	447.2	448.7	448.7	450.0	450.7	452.0	453.4	454.1
5°	452.8	454.8	457.6	458.9	461.7	463.7	466.4	467.8	470.5	472.5	475.3
7.5°	465.0	468.4	471.9	476.0	480.1	483.4	486.2	489.6	494.4	497.8	499.8
10°	476.6	481.4	487.5	492.3	498.5	503.3	507.4	513.5	518.9	523.8	526.5
12.5°	491.6	497.8	503.9	511.5	519.7	525.8	531.9	540.1	547.7	553.1	555.9
15°	509.4	516.9	523.8	532.7	542.2	550.3	559.2	568.1	573.6	573.6	572.2
17.5°	527.8	534.0	542.2	552.4	565.4	575.6	580.4	581.8	579.7	575.0	571.5
20°	546.3	551.8	560.7	573.0	586.6	588.6	583.8	577.7	571.5	563.3	557.9
22.5°	561.3	568.9	582.5	596.8	597.5	585.8	573.0	562.7	553.1	543.6	533.3
25°	579.1	589.3	607.7	613.3	595.5	573.6	555.2	540.1	524.5	508.7	497.2
27.5°	600.9	615.9	634.3	618.7	583.8	553.1	527.8	505.3	484.9	463.0	450.0
30°	624.1	647.3	651.4	610.5	564.1	524.5	490.3	456.1	430.3	410.4	402.8
32.5°	652.1	682.2	657.6	596.2	537.5	485.5	439.8	398.7	377.0	364.7	361.2
35°	694.5	719.0	661.0	581.1	506.7	439.1	381.8	348.9	335.3	327.1	322.9
37.5°	755.2	754.5	660.3	562.7	471.2	388.5	335.3	312.1	301.2	294.3	286.8
40°	826.2	781.8	656.2	536.0	423.4	340.0	303.2	281.3	271.1	262.9	254.0
42.5°	896.6	800.4	644.7	496.4	364.0	305.2	280.0	260.1	249.3	240.4	228.1
45°	957.4	807.8	622.1	441.8	310.7	277.9	264.9	247.9	234.9	221.3	211.6
47.5°	1005.2	806.5	585.8	377.6	275.2	258.8	252.7	241.0	225.4	208.3	196.0
50°	1045.5	796.3	536.7	320.9	251.3	241.7	239.7	236.3	211.0	196.7	189.1
52.5°	1082.4	781.2	484.2	282.7	230.8	222.6	226.7	223.3	205.5	193.2	185.8
55°	1132.8	771.0	432.3	253.4	206.9	204.9	208.3	213.1	202.1	190.5	182.3
57.5°	1192.2	776.4	392.6	220.5	184.3	185.8	197.3	204.2	198.8	186.4	178.2
60°	1260.6	792.8	357.8	189.1	165.9	169.4	186.4	196.0	195.3	181.0	171.4
62.5°	1337.0	809.9	302.5	165.2	150.3	155.7	173.5	185.8	187.8	175.5	163.9
63°	1352.0	811.2	288.2	160.5	147.5	153.6	170.0	183.0	185.8	174.1	162.5
65°	1389.0	798.9	232.2	147.5	136.6	143.4	159.8	171.4	176.9	166.6	157.0
67.5°	1358.2	698.6	174.8	131.8	127.7	132.5	146.8	157.7	162.5	157.7	148.2
70°	1242.2	508.1	136.6	117.4	118.2	121.5	132.5	142.7	148.2	146.8	137.9
72.5°	1000.3	288.2	114.1	105.2	107.2	111.3	118.9	128.4	133.2	132.5	126.3
75°	659.0	147.5	96.3	94.2	95.6	99.0	104.4	112.0	117.4	116.7	114.1
77.5°	326.4	102.4	82.7	83.3	84.0	86.7	90.8	97.7	101.1	101.8	101.1
80°	134.5	79.9	71.0	71.7	72.4	74.5	77.1	83.3	85.3	86.7	87.4
82.5°	80.6	60.8	56.7	58.0	58.7	60.8	62.8	68.3	70.4	72.4	72.4
85°	53.3	42.4	41.0	42.4	43.7	45.1	45.7	49.2	52.6	55.3	56.7
87.5°	28.6	25.3	24.6	25.3	25.3	26.6	28.0	31.4	35.5	38.3	39.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	441.8	441.8	441.8	441.8	441.8
2.5°	452.8	453.4	452.8	453.4	454.1
5°	475.3	476.6	476.0	476.0	478.6
7.5°	501.2	503.9	503.9	505.3	506.7
10°	529.2	531.9	534.0	534.0	536.0
12.5°	557.2	558.5	560.7	560.7	560.7
15°	571.5	570.9	570.2	569.5	569.5
17.5°	569.5	566.8	565.4	564.1	564.8
20°	554.4	549.7	548.3	546.3	547.7
22.5°	528.6	521.7	518.9	515.6	516.9
25°	489.6	481.4	480.1	476.0	478.0
27.5°	444.6	440.5	439.8	439.1	442.5
30°	402.2	403.6	404.3	405.6	409.1
32.5°	363.2	366.0	366.7	367.3	372.1
35°	325.0	321.6	325.0	323.7	327.8
37.5°	283.4	280.7	277.9	274.6	277.2
40°	248.6	243.8	235.6	231.5	232.2
42.5°	221.3	215.1	208.3	204.2	204.2
45°	203.5	196.0	189.9	187.1	187.1
47.5°	189.9	186.4	183.0	181.0	181.0
50°	184.3	180.2	178.2	176.9	176.9
52.5°	180.2	176.2	174.1	172.8	171.4
55°	176.9	170.7	168.7	168.0	168.0
57.5°	172.1	166.6	163.9	163.2	163.2
60°	164.6	160.5	157.7	157.0	157.0
62.5°	157.0	152.9	150.3	150.3	150.3
63°	155.7	150.9	148.8	148.8	148.8
65°	149.6	144.7	142.7	142.7	142.0
67.5°	141.4	136.6	135.2	135.2	133.8
70°	131.8	127.7	126.3	127.1	124.3
72.5°	122.2	118.2	116.1	116.1	113.3
75°	111.3	107.2	104.4	103.8	101.1
77.5°	99.0	95.6	92.9	90.1	88.8
80°	86.0	83.3	79.9	77.8	75.8
82.5°	72.4	69.7	67.6	70.4	60.0
85°	56.7	53.9	51.2	55.3	43.1
87.5°	41.6	40.3	37.5	32.7	28.6
90°	0.0	0.0	0.0	0.0	0.0

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